

FIG. 4A
(PRIOR
ART)

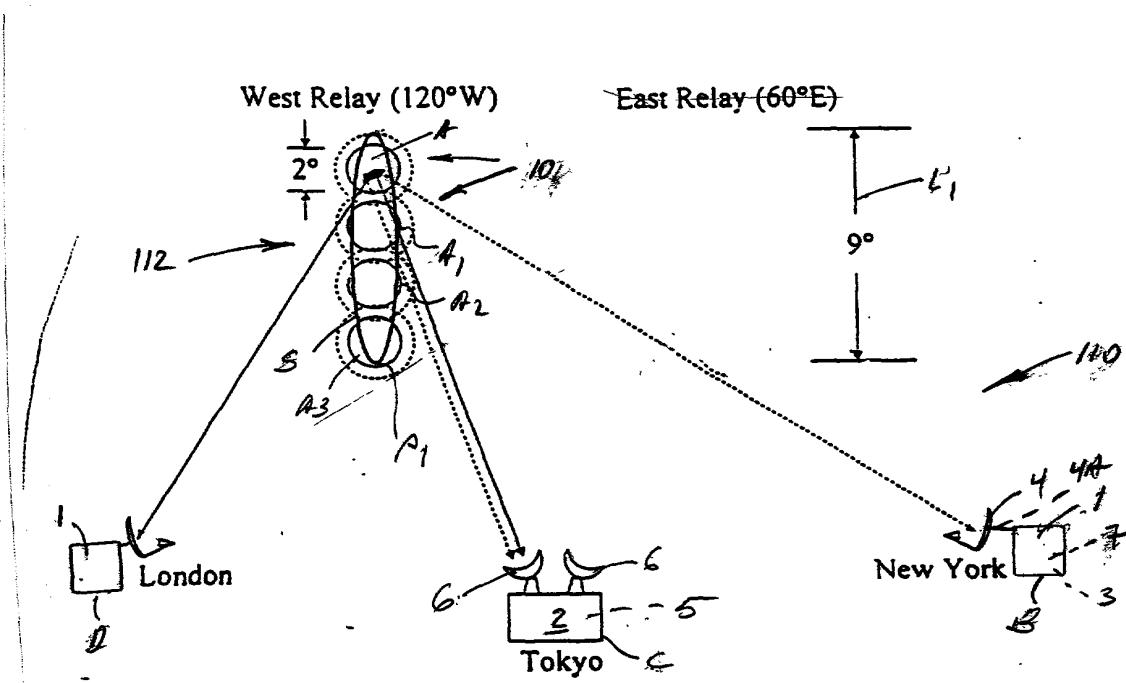
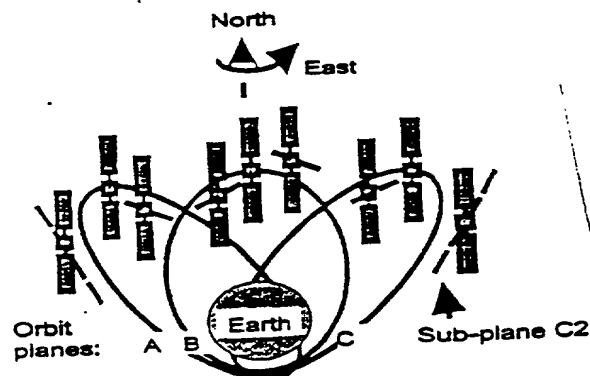


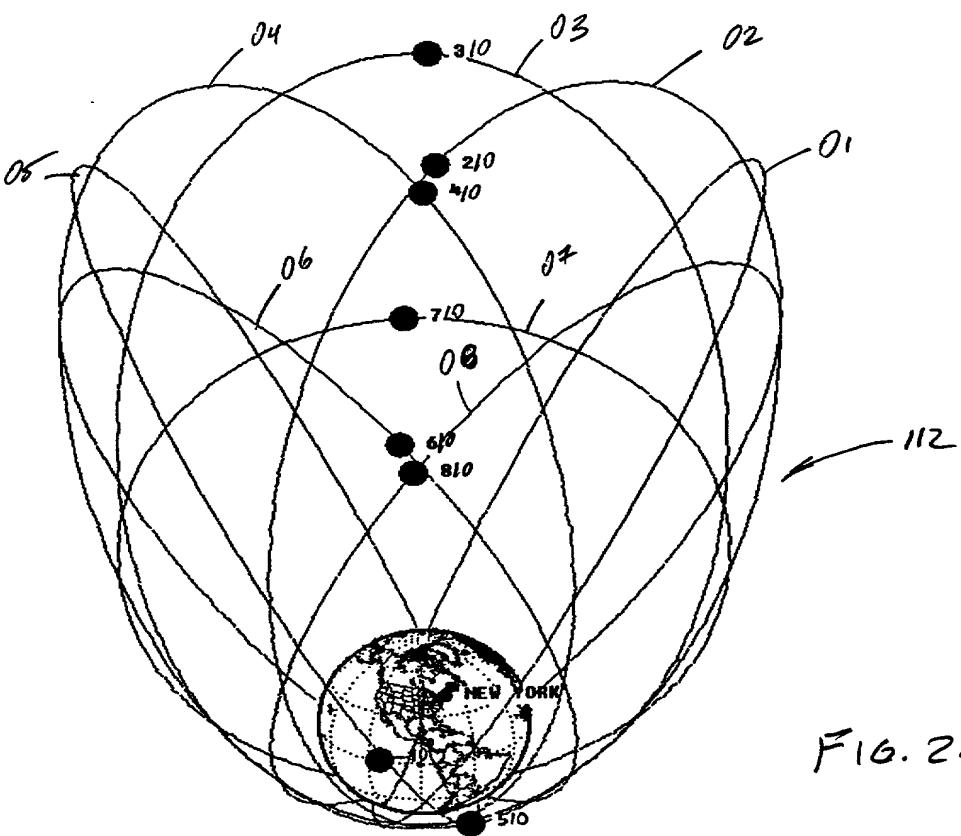
FIG. 1

FIG. 2



8 SATELLITES IN MOLNIYA ORBITS

FIG. 2A



20 22 23 25 26 27 28 29 30

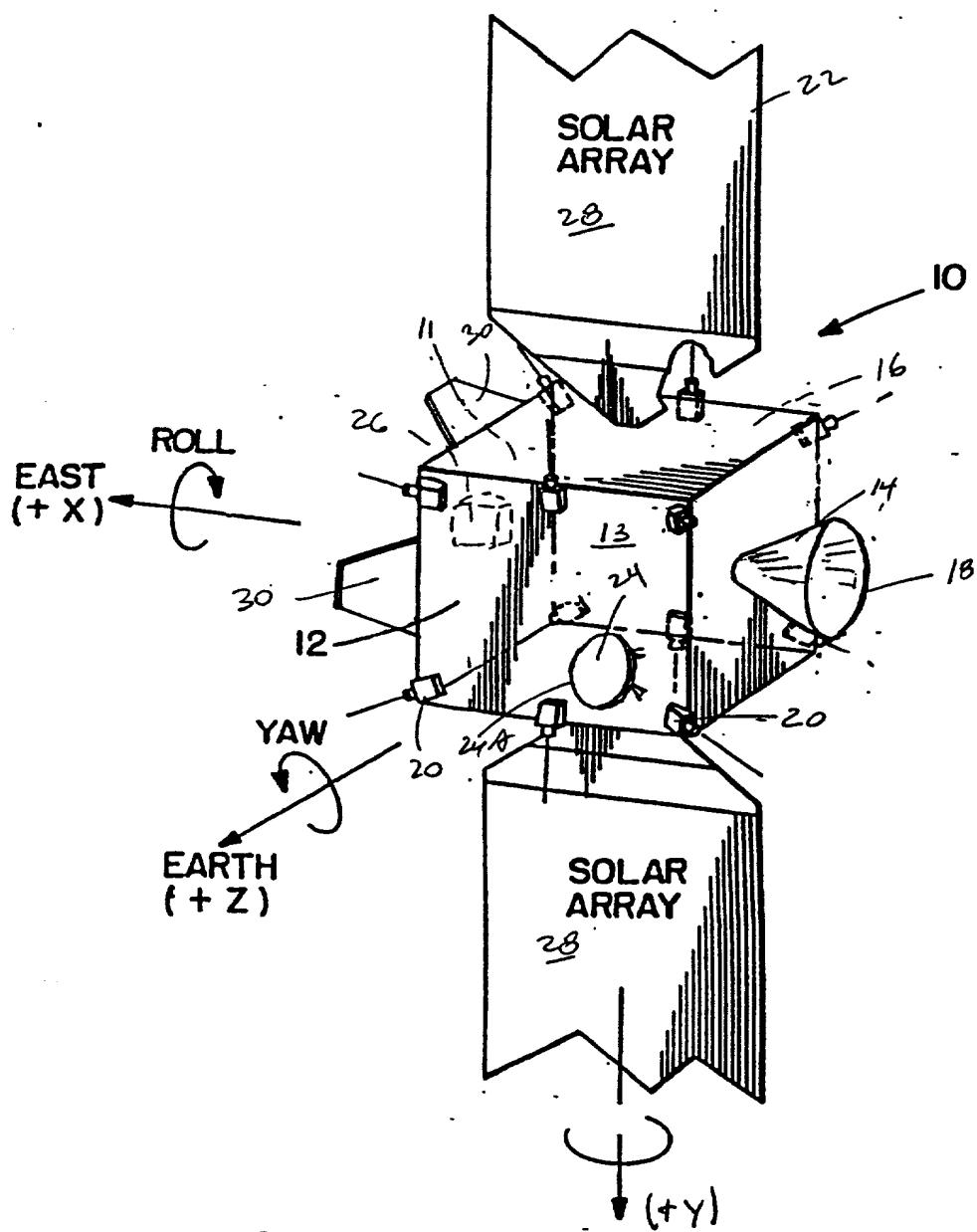
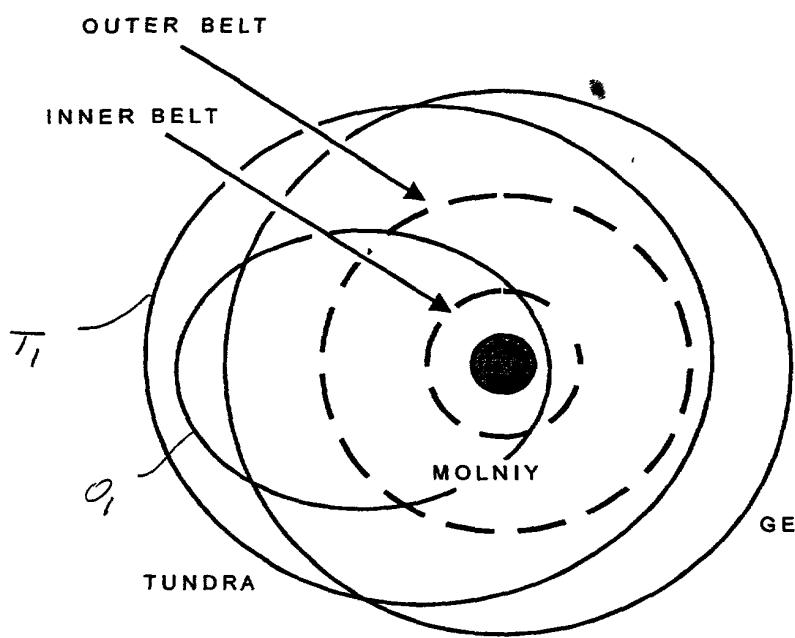


FIG. 3



INNER BELT MAXIMUM INTENSITY AT ABOUT 10000 KM RADIUS

OUTER BELT MAXIMUM INTENSITY AT ABOUT 27000 KM RADIUS

TUNDRA ORBIT PERIGEE IS AT 31700 KM RADIUS

FIG. 4
(PRIOR ART)

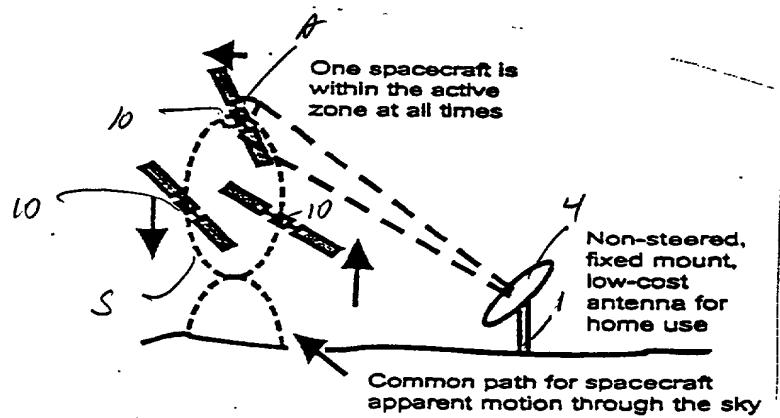


FIG. 5A

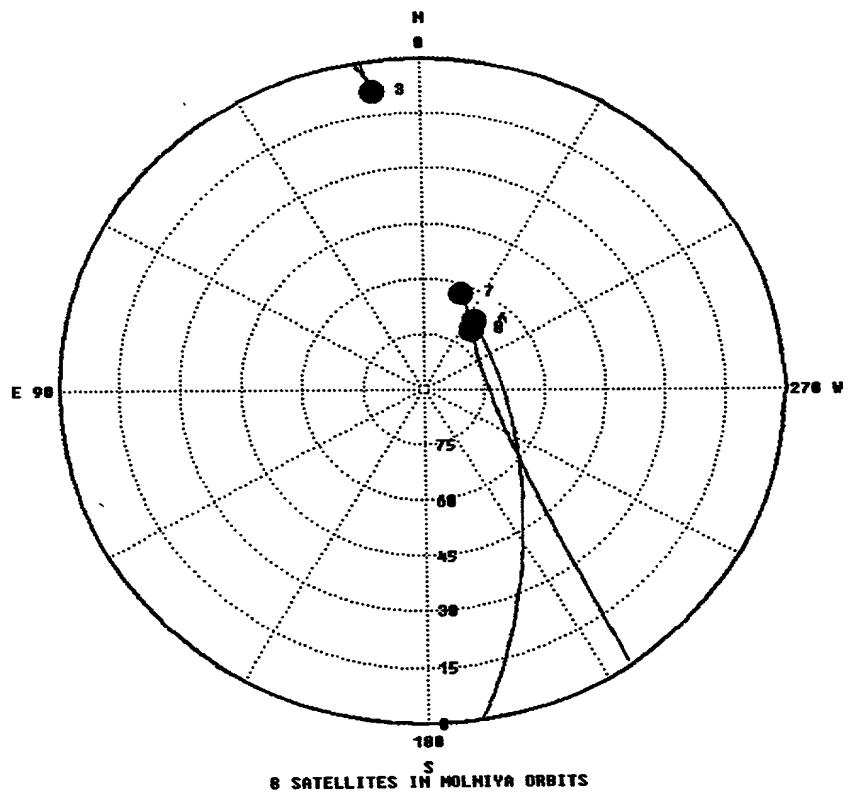


FIG. 5B

24-HOUR TUNDRA ORBIT WITH INCLINATION 55 DEG., ECCENTRICITY 0.268
ARGUMENT OF PERIGEE HISTORY - LUNI-SOLAR AND OBLATENESS PERTURBATIONS

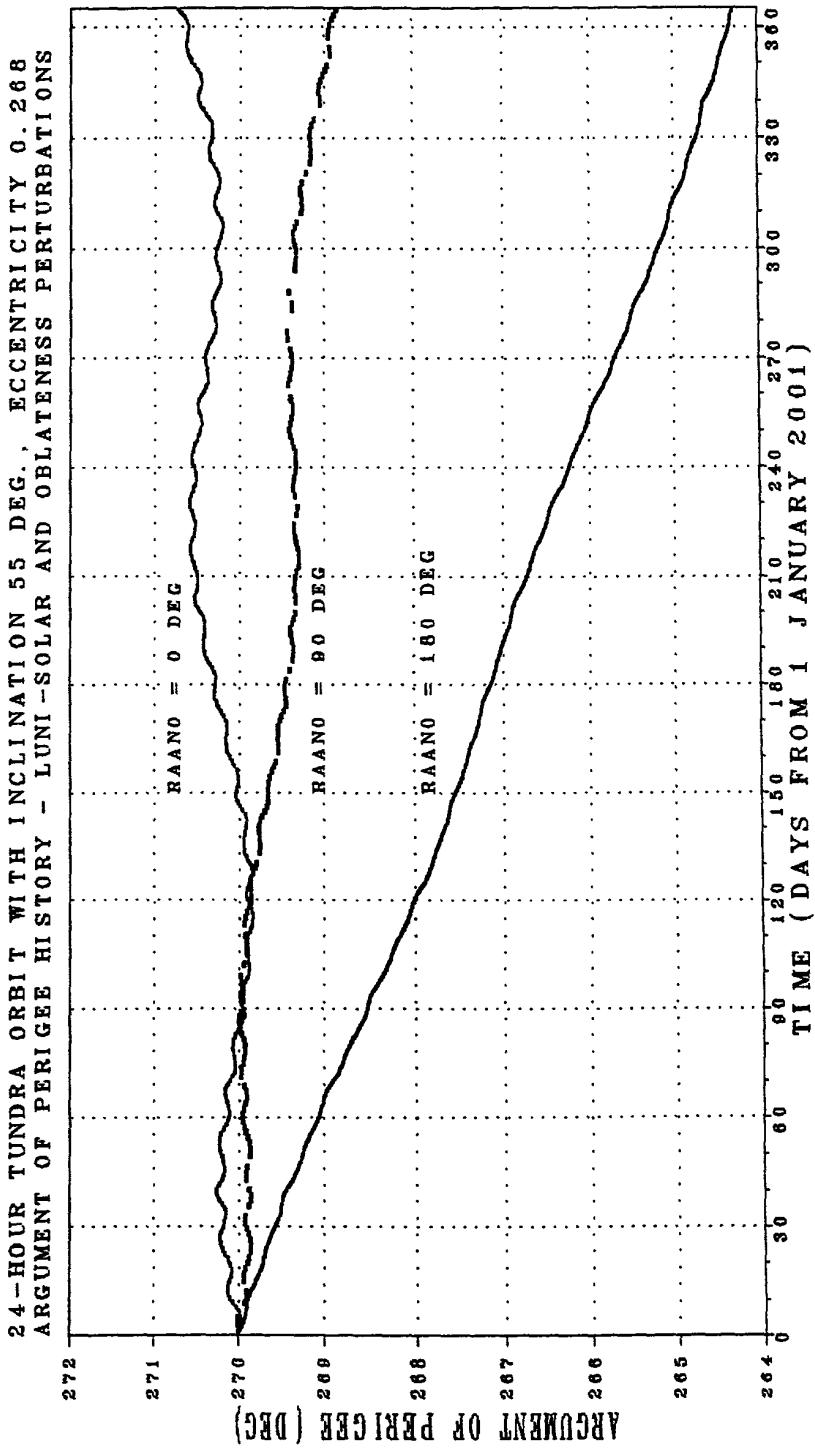


Fig. 6

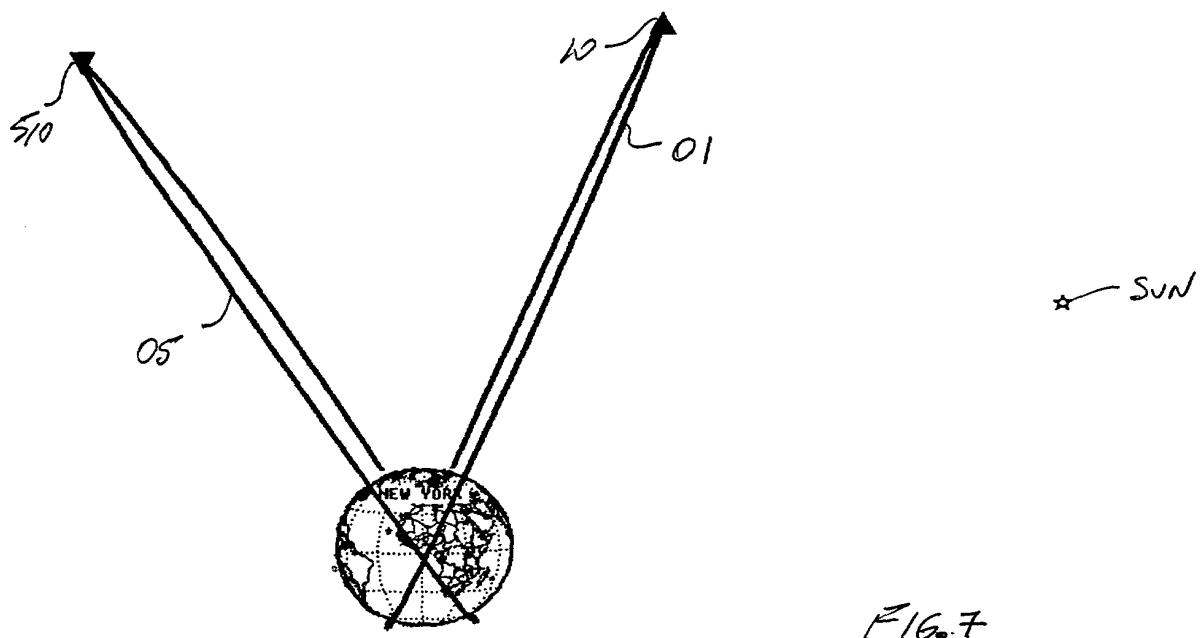


FIG. 7

2 LAUNCHES INTO 2 MOLNIYA ORBIT PLANES

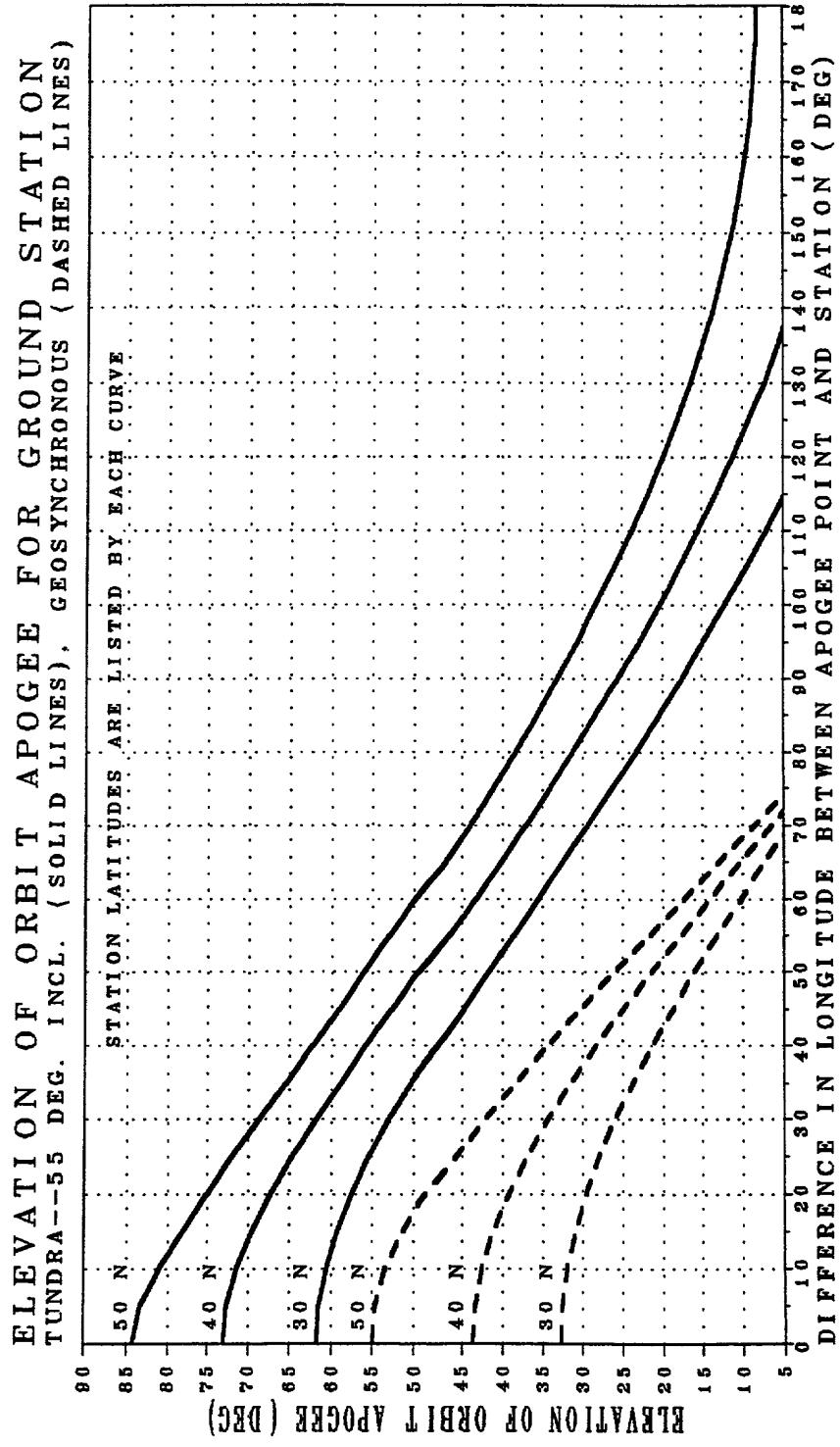


FIG. 8



FIG. 9

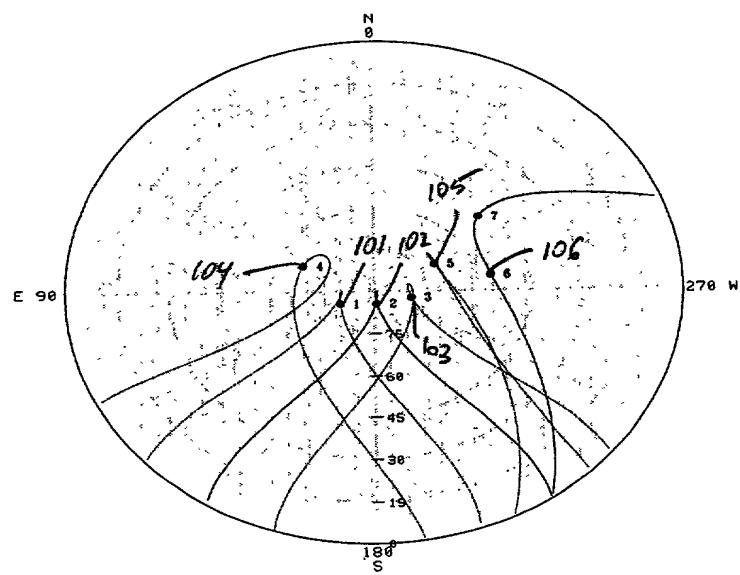


FIG. 10

SPACECRAFT APPARENT MOTION AS VIEWED FROM A GROUND SITE
ANTENNA AIM POINT: OPTIMIZED DIRECTION TO MINIMIZE SPACECRAFT MOTION

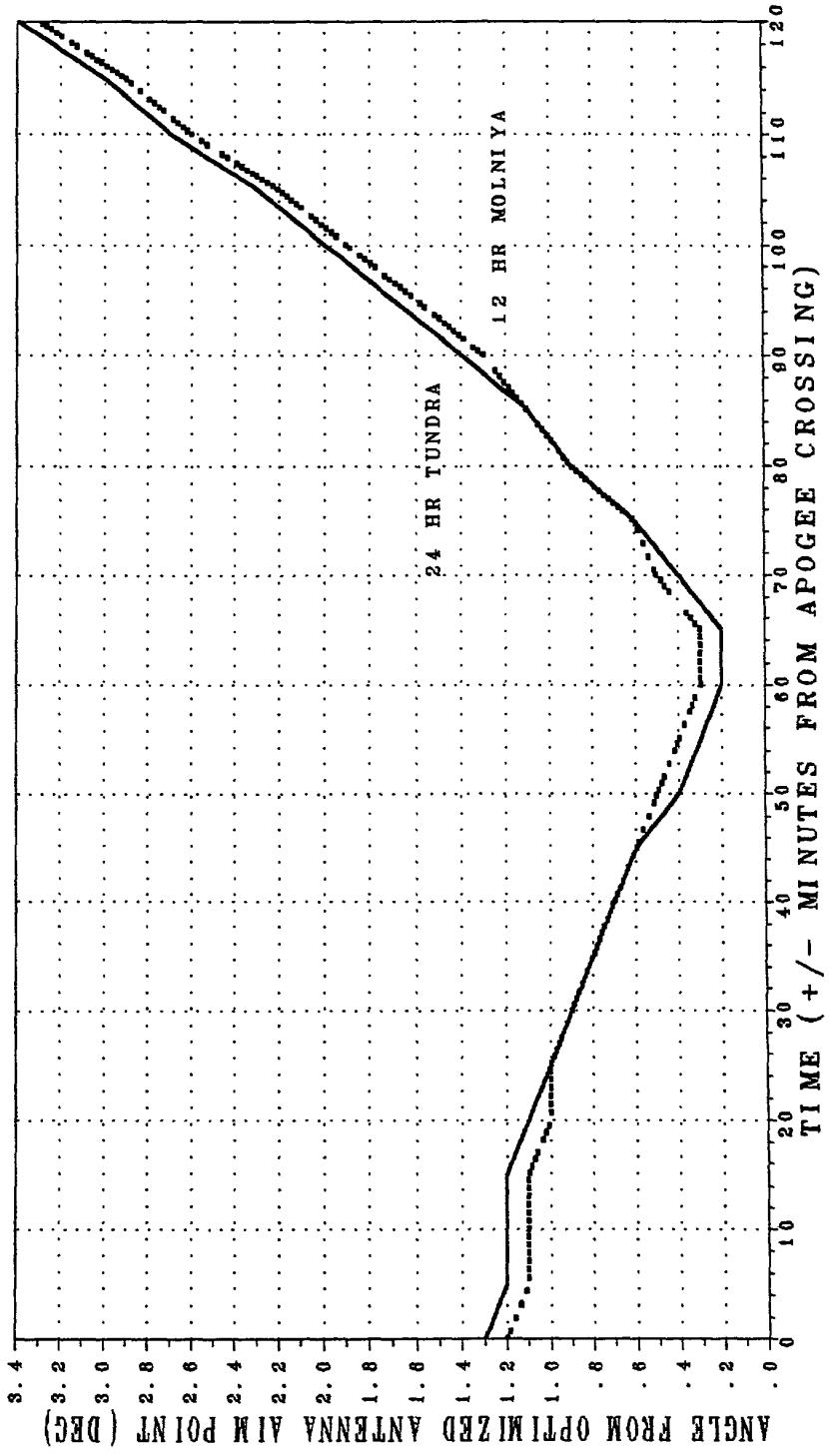


FIG. 11

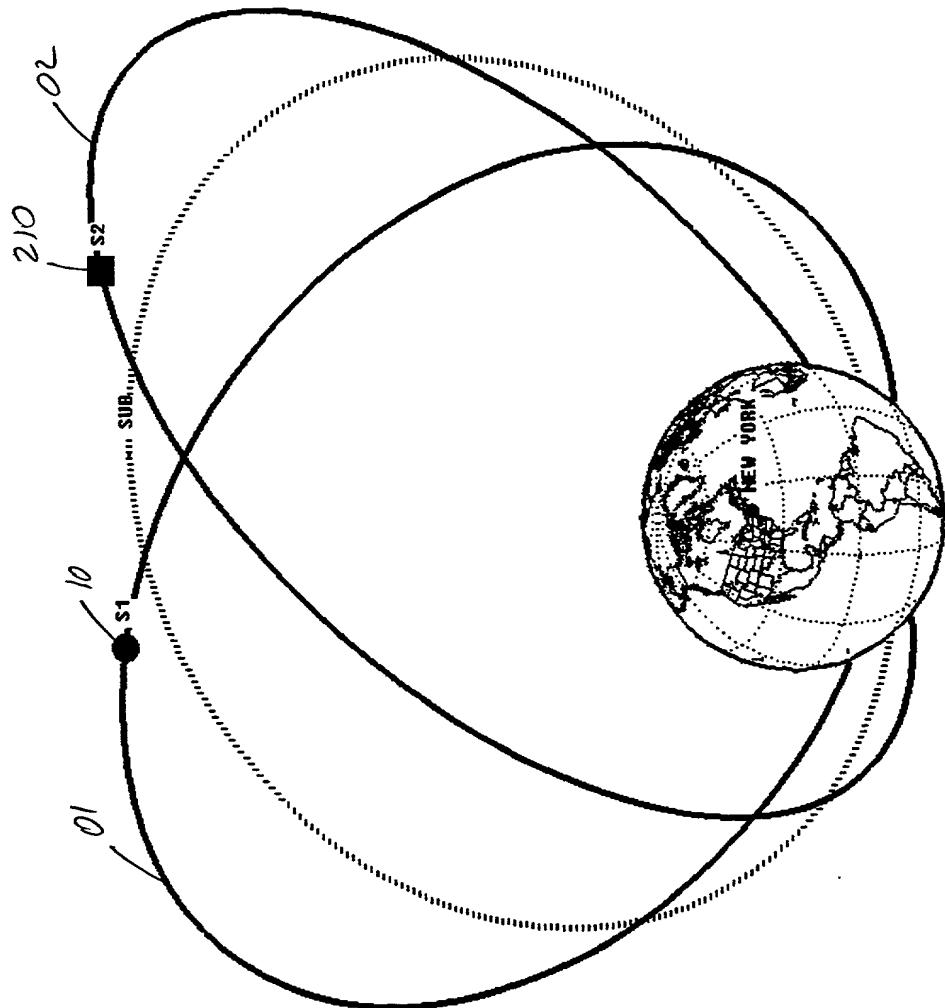


FIG. 1/2

2-SATELLITE LAUNCH AND MANEUVERING INTO 2 MOLNIYA ORBIT PLANES

VELOCITY INCREMENT FROM TRANSFER ORBIT TO TUNDRA ORBIT
INCLUDING PLANE CHANGE TO CONFIGURE ORBITAL PLANES

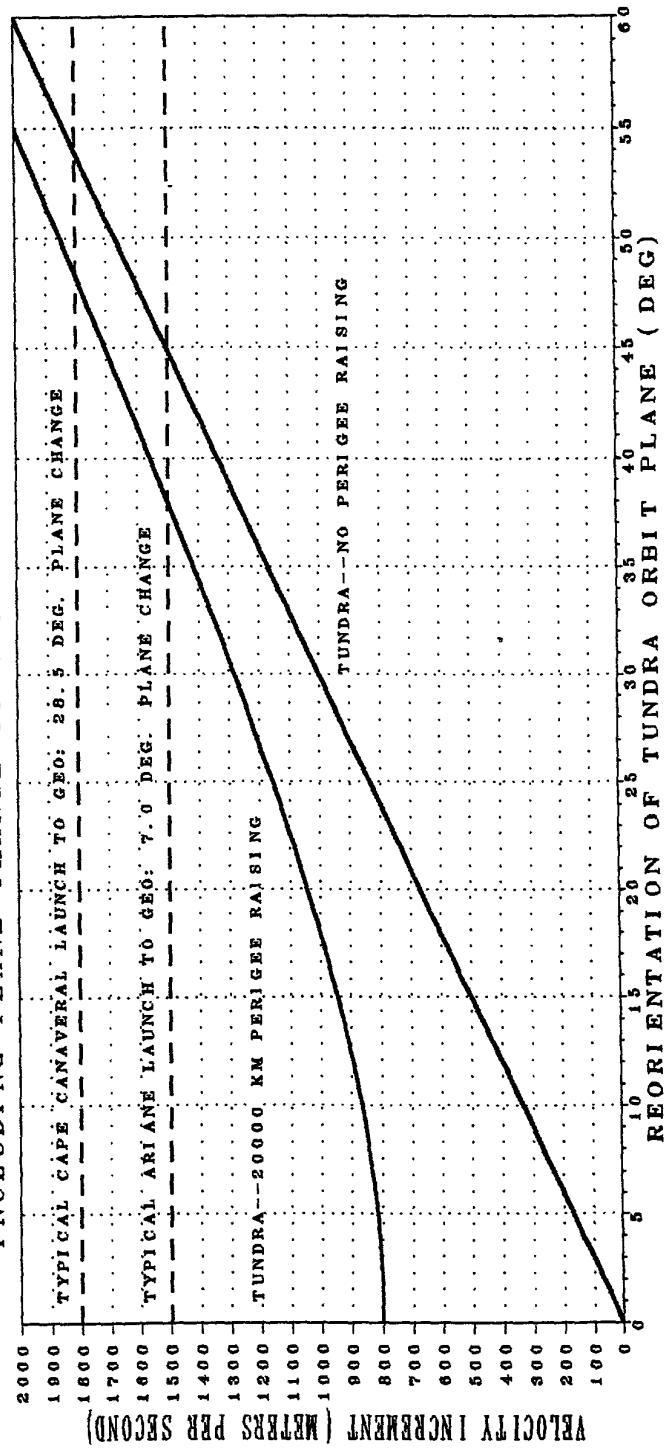


FIG. 13

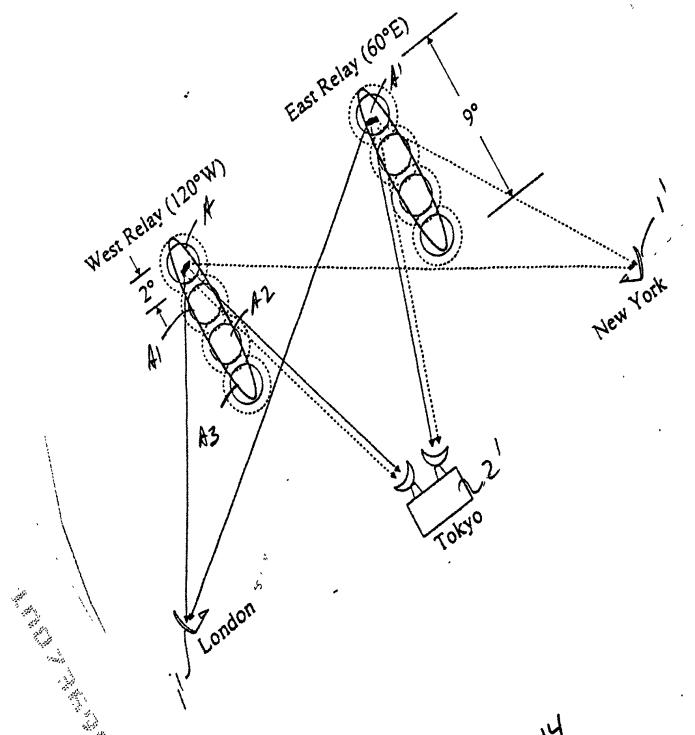


FIG. 14